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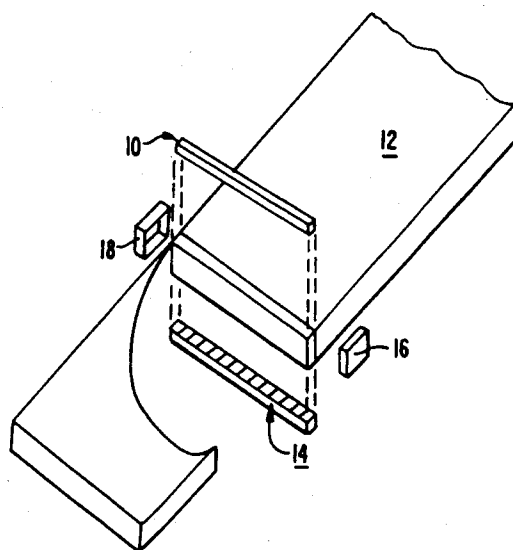
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MARKS & CLERK 57-60 Lincoln's Inn Fields
London WC2A 3LS(GB)**(54) **Rectangular capillaries for capillary electrophoresis.**

(57) An elongated or rectangular cross-section capillary 12 is disclosed for use in capillary electrophoresis using optical detection 10, 14. With rectangular capillaries, heat is efficiently dissipated which permits large volume applications in capillary electrophoresis. In addition, the increase in cell pathlength between the source 16 and detector 18 produces significant improvements in absorbance detection sensitivity. This advantage is also important for laser-induced fluorescence, optical rotation, and other pathlength-dependent detection schemes. Because flat walls produce less optical distortion than circular capillary walls, rectangular capillaries are particularly useful when parameters such as refractive index, photodeflection, direct visualization or particle counting are used for detection. Capillary electrophoresis employing rectangular capillaries also allows for two-dimensional separations, the lateral separation being detected with a segmental detector 14.

**FIG. 14.****EP 0 454 286 A3**



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EUROPEAN SEARCH REPORT

Application Number

EP 91 30 0107

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	ELEKTRONIK vol. 26, no. 5, 31 May 1977, MÜNCHEN pages 67 - 71 K. SPIEGEL 'MESSDATENERFASSUNG BEI DER ELEKTROPHORESE' * page 67 *	1	G01N27/447
Y	US-A-3 479 277 (A. KOLIN) * figure 2 *	1	
A	JOURNAL OF CHROMATOGRAPHY vol. 255, 31 December 1983, AMSTERDAM pages 359 - 379 J.C. GIDDINGS 'CAPILLARY LIQUID CHROMATOGRAPHY IN FIELD FLOW FRACTIONNATION-TYPE CHANNELS' * figure 1 *	1	
A	US-A-4 675 095 (H. KAMBARA) * figure 3 *	1	
E	EP-A-0 416 234 (G.B. GORDON) * abstract; figure 3A *	1	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
P,X	ANALYTICAL CHEMISTRY vol. 62, no. 19, 1 October 1990, WASHINGTON, D.C. pages 2149 - 2152 T. TSUDA 'RECTANGULAR CAPILLARIES FOR CAPILLARY ZONE ELECTROPHORESIS' * the whole document *	1	G01N
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 14 OCTOBER 1992	Examiner DUCHATELLIER M.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			